levels at struck plants, (2) weak foreign markets, (3) direct sales by European producers to the U.S., (4) ample domestic producer inventories, and (5) high battery inventories. Consumption is also slow paced with year-to-date totals up only 2-3%. True, prices could rally again this fall if strikes persist, but gains will be modest—to maybe 30¢/lb—and they could well tail off again in early '85 when demand drops seasonally.

Zinc

Markets have turned soft again. Behind the tail off: Ample supplies, plus steel mills have been reluctant to carry more than bare minimum stocks. Consumption continues to hold up well—with year-to-date totals running better than 10% above '83 levels. Next year's gain should be smaller as auto and housing demands level off—with the advance only in the 3-5% range. But that should be enough to support a price in the low 50's, a few cents above current levels.

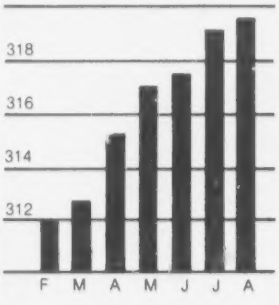
Sulphuric acid

Be prepared to pay about $10/ton more for 100% acid, despite the continuing oversupply. Even with the new hikes, some tags remain as much as 60% under 1981 peaks. One reason for the current firming—aside from somewhat better demand—could be rising sulphur quotes. The price of this key acid raw material has risen $7.50/ton FOB Tampa (to $147.50). While competitive allowances ranging up to $10/ton will continue, they will be off the higher list.

Paper

Prices are still on the rise, but the rate of advance seems to be slowing slightly. Significantly, scattered softness seems to be shaping up in some sectors. Discounts have appeared in uncoated white paper where substantial new capacity is being added. Also, the $30/ton increase in linerboard is meeting opposition. At least one seller is reported extending big volume contracts at the older, lower price for another six months.

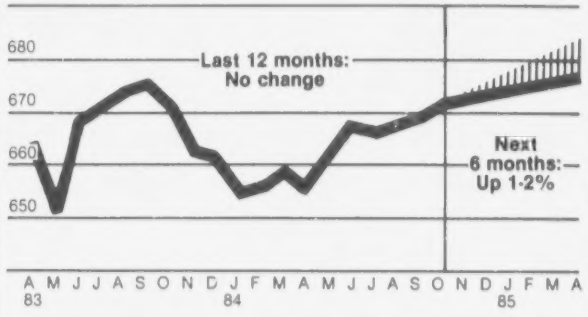
Paper prices
(Index: 1967 = 100)



Copper

Still no sign of any major rally. The overall trend should be mostly up from here on, despite Washington's rejection of import curbs. Signs of bullishness include (1) steady stock declines on both Comex and LME, (2) some tightness in concentrates, (3) a modest uptick in orders, (4) consumption runs close to 10% above '83, and (4)

Fuel and power
(Index: 1967 = 100)



Fuel and power

CURRENT SITUATION: Good news continues—as a lingering oil glut keeps a lid on virtually all energy tags. Demand is beginning to rise and OPEC is making some headway in curtailing output. But there's enough oil to go around with prices remaining virtually unchanged from a year ago. Here's how prices compare for individual sectors: crude oil (same), natural gas (1%), gasoline (-8%), fuel oil No. 2 (2%), kerosene (2%), jet fuel (-2%), diesel fuel (2%), and coal (2%).

DEMAND: A booming economy suggests about a 3% overall increase in energy use. Nuclear power (up 6%) should show the largest increase with coal and electricity expected to rise by 5%. Even hard-hit natural gas (where demand fell 5% last year) will show a 3-4% gain. Ditto, petroleum where last year's nearly 1% decline will give way to an increase of 3%. In energy use oil will capture 42% in 1984 followed by gas (25%), coal (23%), and all other (10%).

SUPPLY: It looks like smooth sailing—barring either a prolonged coal strike or a Middle East blowup. U.S. dependence on Persian Gulf oil is low—only about 500,000 barrels a day—or just 3% of total U.S. supplies. The U.S. impact would be cushioned by 400 million barrels of oil in the Strategic Petroleum Reserve--enough to last 800 days if Middle East oil exports stopped and even 80 days if all U.S. imports were suspended.

PRICE OUTLOOK: A recent DOE forecast provides the cheery details about projected 12-month changes through mid-1985: gasoline, No. 2 fuel and jet fuel (no change); No. 6 resid. fuel (-3%). Natural gas, electricity and coal are all expected to rise by about 6% over that time span, but some of this may be overly pessimistic. Thus in natural gas, discount contracts with large users are becoming widespread. As for coal, the fuel is quite vulnerable in view of heavy stockpiles.

continuing U.S. production cutbacks to near 50% of capacity. Given the above, prices could well edge into the 75-80¢/lb range by mid-1985, if we can avoid a business downturn.

Credit

Expect vendors to tighten up credit terms in the months ahead. A new survey by the National Association of Credit Management finds 32% of queried credit managers planning on increasingly stringent policies over the next six months, far outweighing the 1% who plan some easing. Another indicator of a crackdown is 13% contemplate an increase in the use of service or interest charges on past-due accounts (versus only 2% who see decreases).

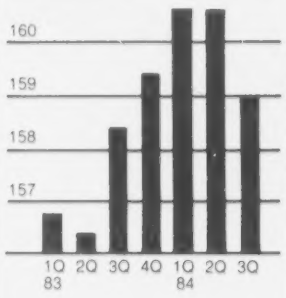
Cement

Recent increases have raised averages to near $64/ton, close to 4% above recent spring levels. Another hike is possible by early next year, possibly in the $69-70/ton range, as operating rates rise in line with stepped-up road building. The average mill will operate at near 94% of its potential this year, up from 89% last year. In 1985, the figure could rise to nearly 96%, suggesting possible supply problems, especially in the Northeast and Midwest.

Textiles

Manmade fiber quotes have been slipping lately with deals reported at these low levels: Polyester blending staple (78¢/lb, off 2-4¢/lb from recent levels); rayon staple (83-86¢/lb, off 1-3¢/lb); 150-denier polyester feeder yarns (82-87¢/lb, off 3-4¢/lb); and 40-denier nylon filament yarn ($1.85-1.90/lb, off as much as 5¢). Blame it on a combination of (1) less buoyant demand, (2) recent declines in raw cotton which have put pressures on both rayon and polyester staple, and (3) imports which have hurt domestic filament yarns. Also indicative of softness is that manmade operating rates have dropped from 85% in May to near 78%.

Manmade fiber prices
(Index: 1967 = 100)



Steel

Imports continue to roll in with well over 16 million tons entering the country over the first eight months of the year. The figures confirm recent estimates of a 22 million ton import year, close to 30% above '83 levels. Price is the main reason as a buoyant dollar pushes domestic lists more than $100/ton above comparable imports in many product lines. One result is disappointing domestic shipments. Even with a seasonal fall pickup, fourth quarter totals will be lucky to hit 19 million tons, some 1.5 million under the tonnage shipped during the April-June quarter.

1985 fleet car recommendations

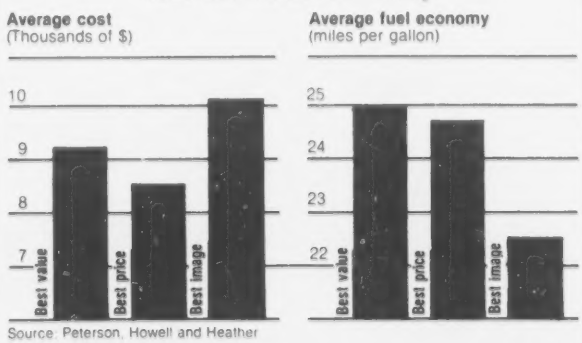
'Tis the season for new car models—and here's what the experts at Peterson, Howell & Heather (PH&H), a big Maryland-based leasing firm), are telling their clients:

- **Best value**—reflecting a combination of fuel economy, original cost, resale value, interior size, comfort, trim levels, and trunk space: Buick Skylark Custom (X) 4-door, Buick Somerset Regal (N) 2-door, Chevrolet Celebrity CL 2 & 4-door, Dodge Lancer 2 & 4-door, Oldsmobile Calais 2-door, and Pontiac 6000 2 & 4-door.
- **Best price group**—for those looking for the lowest possible acquisition cost without size penalties: Chevrolet Cavalier CS 2 & 4-door, Chevrolet Citation 2 & 4-door HB, Dodge Aries 2 & 4-door, Ford Tempo GL 2 & 4-door, Mercury Topaz GS 2 & 4-door, Plymouth Reliant 2 & 4-door, and Pontiac Sunbird 2 & 4-door.
- **Best image group**—for firms that use a company car for its recognition, an inducement to employment, or an indication of status: Buick Century Custom 2 & 4-door, Chrysler N-body 4-door, Ford Thunderbird 2-door, Mercury Cougar 2-door, Olds Cutlass Ciera LS 2 & 4-door, and Pontiac 6000 LE 2 & 4-door.

PH&H analysts say 1985 prices will increase over 1984 prices, including cost increases during the model year, by about 5%.

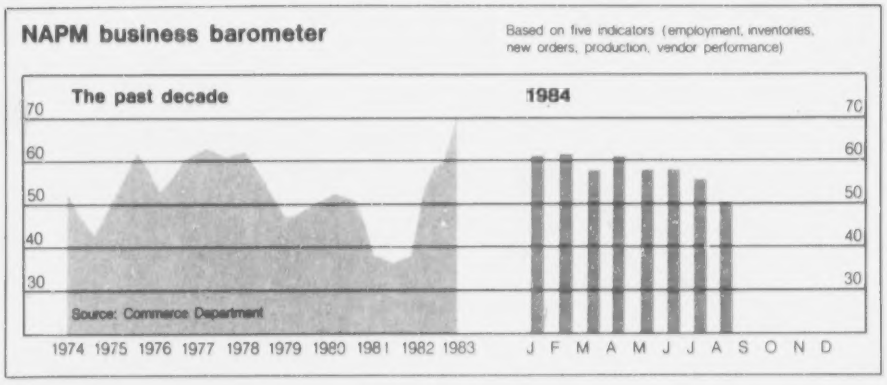
The firm recommends 4 cylinder cars to cut fuel costs. For example: the 2.5 mpg average difference between fours and sixes turns into $391.50 in fuel savings over a 27-month service life. Also a six adds more than $200 to the cost of a new car—and most of this is not recovered at resale.

1985 car model summary



Source: Peterson, Howell and Heather

BUSINESS DATATRAK


NAPM business barometer
Based on five indicators (employment, inventories, new orders, production, vendor performance)
The past decade
1984
70
60
50
40
30
Source: Commerce Department
1974 1975 1976 1977 1978 1979 1980 1981 1982 1983
J F M A M J J A S O N D

KEY ECONOMIC TRENDS

Growth slower, but still strong

Business may finally be ready to slow down a bit.

The NAPM Business Barometer at latest report had slipped to 51.5, marking the second straight month of sizable decline. But this key indicator is still above the neutral "50" level, suggesting further production and GNP gains still loom ahead though they are not likely to be as robust as those of earlier this year.

There are also some very reassuring signs that the economy, while obviously decelerating, will remain solidly in the plus column into early 1985.

It is difficult to shrug off such factors as:

Beefed up business spending: The accompanying chart depicts trends in capital appropriations, a leading indicator of plant and equipment outlays. The latest reading shows a hefty 38% jump, marking the fifth successive quarterly increase in this bellwether series.

The Conference Board, compiler of these figures, adds that for all of 1984, the nation's largest manufacturers project a 20% climb in appropriations, with actual spending expected to be up by an even more impressive 25%. With modest price boosts, the real or physical gain looks almost as large.

Still high durable goods orders: While totals are now a bit under the early '84 peak, they remain a strong 12% above a year ago. Orders are continuing to come in at a faster clip than they are being shipped out. The result is a rising backlog, particularly in the auto, defense, and nondefense capital goods sectors.

These rising backlogs should assure continued production increases, even if orders should begin to taper off. Fourth quarter production projections now making the rounds all point to continued output gains, with the actual advance put at a 6% annual rate.

Tight inventories: The actual figures are detailed in the inventory article in this section. Generally, stocks are trim at virtually every level, indicating there is little danger of any living off inventory fat which could crimp the near-term growth trend.

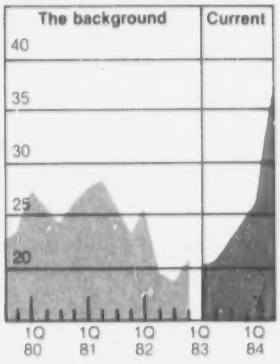
There are, however, a few points of concern. Consumer buying plans have turned down, but it would take a few more months of slippage before a significant trend could be verified.

Consumer buying habits will bear close watching, especially if, as expected, interest rates stay high.

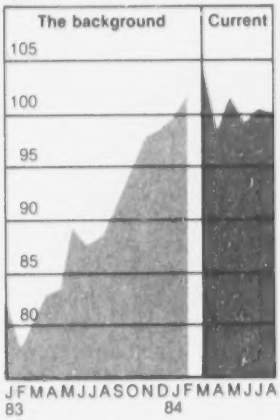
These rates are already having some impact on the housing market with new starts expected to slacken off to a near 1.7 million annual rate in the upcoming fourth quarter which is well under the 1.9 million plus rate for the first six months of the current

Leading indicators

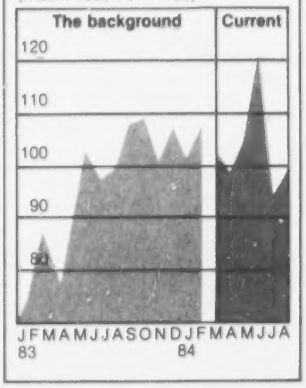
1. Capital appropriation
(Billions $, seas. adj.)



2. Durable goods orders
(Billion $, seas. adj.)



3. Consumer buying plans
(Index: 1969-70 = 100)



year.

But this is still a respectable pace. When added to other positive factors (still strong auto sales, the defense buildup, and an improving capital goods market), it is not hard to remain optimistic about the next few quarters. Hence these updated *PurchasingWorld* GNP growth projections: 3.5% at annual rate over the last three months of 1984 and a smaller 3% gain for the upcoming January-March period.

If all goes according to plan, we may see a third complete year of uninterrupted growth in 1985, with the real GNP averaging about 3% above this year which will follow the 3.7% and 7.5% gains of 1983 and 1984.

Hard to ignore imports these days

There are still plenty of import bargains around. And with good reason.

Ever since Uncle Sam began tracking import prices in late 1982, they have been out-performing comparable domestic averages. Although the gap has been small in most quarters, the totals are beginning to add up. Note, too, that over the last quarter there have been decreases in some product lines.

The situation looks like this:

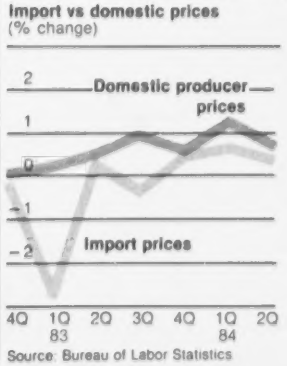
Crude materials: Averages dropped 0.6% in the last quarter, after rising 4.7% the previous period. Tags on wood (up 7.1% in the previous quarter) plummeted 10.1%. Crude rubber dropped 6.3%, while minerals declined 3.8%. Packaging materials helped push pulp and waste paper up 9.7%.

Chemicals: Averages dropped 0.4%. Fertilizer quotes rose 1.7%, but most other categories were down.

Machinery and transport equipment: This is mixed picture. Prices of imported autos, specialized machinery (textile, farm, civil engineering), and VCRs are up. Most telecommunications equipment fell, as did electrical machinery (-3.2%), office machines (-1.1%), and metalworking machinery (-0.4%).

Intermediate products: Averages jumped 1.5%. Much of the increase was in steel (4.4%), nonferrous metals (1.4%), and paper/paperboard products (1.6%). Declines were posted in textiles (0.5%), non-metallic mineral manufactures (1.1%), and rubber products (0.7%).

How import prices stack up



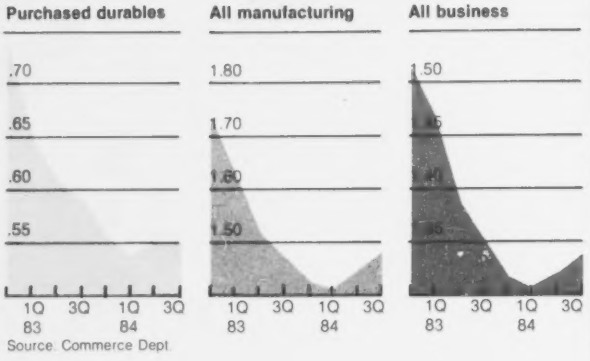
Source: Bureau of Labor Statistics

Import % change
(2Q 84 vs 1Q 84)

Fuels	-0.3%
Chemicals	-0.4%
Paper & board	1.6%
Textiles	-0.5%
Steel	4.4%
Nonferrous	1.4%
Fasteners	0.9%
Motors & generators	0.3%
Metalworking machinery	-0.4%
Bearings	-0.3%
Electric machinery	-3.2%
Instruments	-1.3%

Inventories: 3 views

(stock-sales ratio)



Source: Commerce Dept.

No sign of dangerous buildup

It is a "no sweat" inventory situation across the board.

True, the sharp declines in stock/sales ratios have ended (see chart). But as of now there is no sign of any dangerous buildup. All key ratios are well under the peaks of late 1982.

Perhaps the best showing is in purchased durable materials. The stock/ sales ratio (a measure of PMs days' supply) has dropped more than 25% in less than two years and is now near its all time low.

Judging from a recent survey (*PW* Sep 1984, pg. 86), purchasing executives intend to keep it that way. Their responses indicated that some 60% would still like to see lower days' supply compared to about 15% who felt levels were too low.

Talks with buyers suggest a combination of factors behind this "keep 'em lean" strategy. Foremost is today's high carrying charges.

Several other factors are suggested, including (1) still more-than-ample capacity in most areas, (2) relatively steady prices, (3) improved inventory controls, (4) increasing reliance on distributors to fill holes, and (5) the continuing trend toward long-term contracts to reduce the threat of supplier delivery delays.

Many of these same factors also seem to be affecting the inventory thinking of suppliers, wholesalers, and even retailers. Thus the all-business inventory/sales ratio has been falling at approximately 12%.

This is a healthy sign, ruling out the inventory excesses that aborted so many recent business recoveries.

CURRENT PRICES

Prices down, softness in energy

It may seem hard to believe, but industrial prices actually slipped this past month, dropping 0.2%. Current averages are only about 2% above a year ago, a remarkable performance considering industrial demand has jumped more than 10% over the same period.

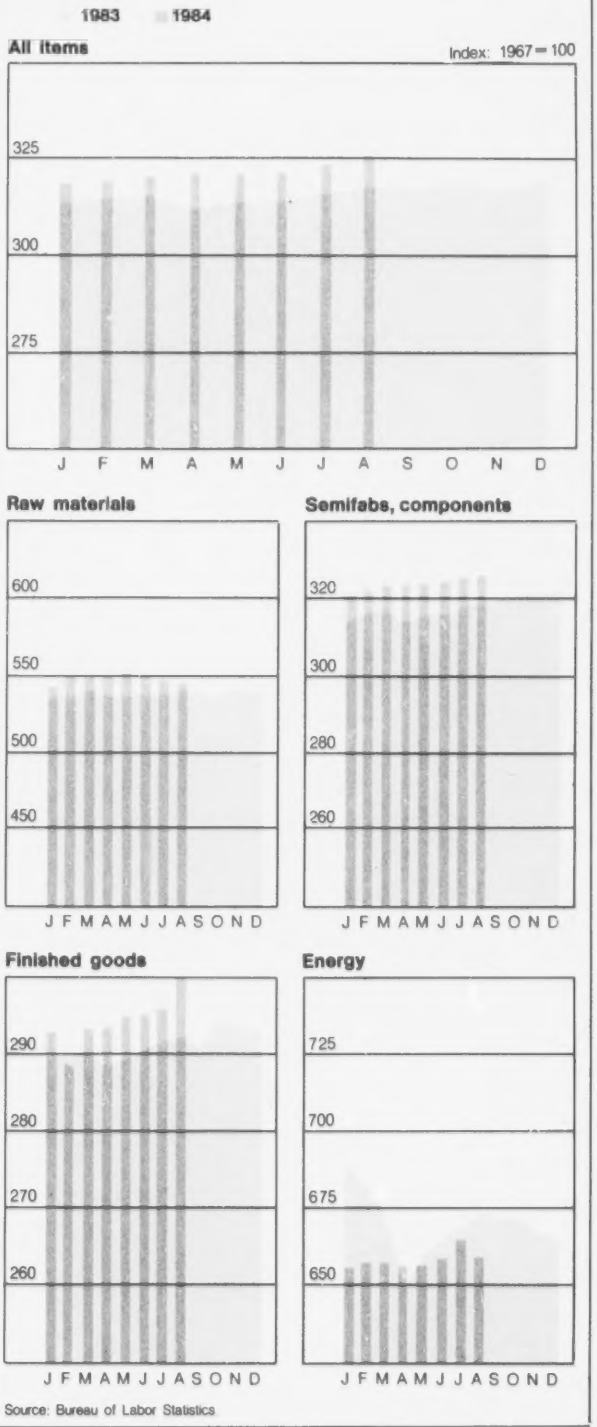
Much of this month's good showing can be credited to the energy sector where declines were reported in gasoline, home heating oil, diesel fuel, kerosene, and liquid petroleum gas, more than outweighing some modest upcreep in natural gas and electricity.

Organic chemicals also

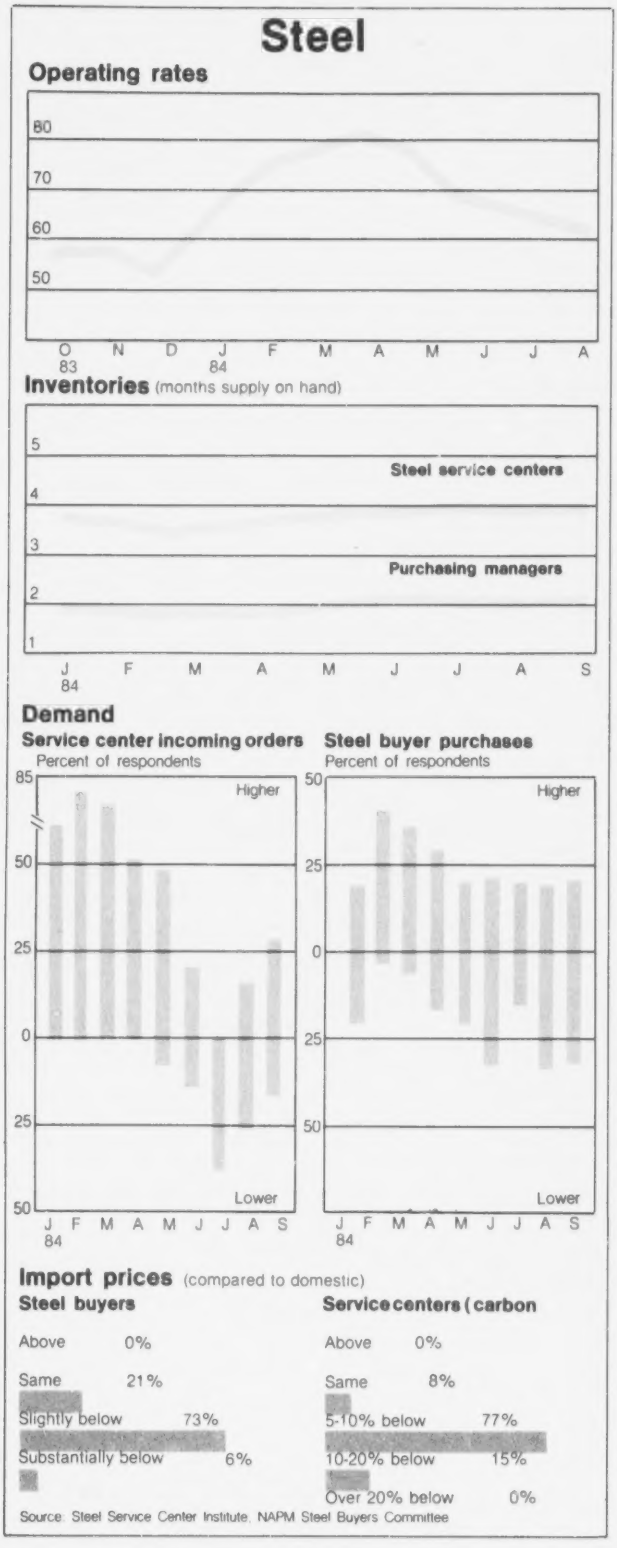
This month's breakdown

	Latest level (August)	% change from: Month ago	Year ago
Bearings	343.6	0.1	3.7
Bolts, nuts, etc	277.1	−0.5	4.3
Chemicals, inorganic	294.2	0.1	0.9
Chemicals, organic	364.0	−1.8	−2.9
Concrete products	311.2	0.2	2.8
Corrugated cartons	264.7	0.8	9.2
Cutting tools, small	281.1	0.1	1.1
Electric lamps (bulbs)	332.7	−1.1	6.1
Electronic components	193.1	0.4	4.0
Fans and blowers	351.4	0.1	4.1
Foundry and forge products	362.0	0.2	3.0
Fuel oil (residual)	1152.9	−0.6	6.6
Furniture, commercial	298.4	0.2	4.2
Gasoline	555.1	−3.1	−11.2
Glass, flat	217.8	−4.2	−5.2
Glass containers	366.0	−0.3	4.2
Gypsum products	352.9	−2.1	22.0
Hand tools	359.1	0.3	2.7
Hand tools, power driven	224.1	−0.1	1.4
Industrial furnaces	376.0	0.4	3.6
Integrating and measuring instruments	229.2	0.6	3.4
Internal combustion engines	154.1	−0.1	−0.2
Lubricating oil	797.8	0.0	2.8
Lumber millwork	306.1	0.1	−0.2
Material handling equipment	290.3	0.4	1.8
Metal containers	352.4	1.1	4.7
Metal mill shapes (nonferrous)	321.3	−0.5	2.9
Metal tanks	306.1	−0.1	0.0
Motors and generators	340.3	0.0	1.6
Motor trucks	281.7	−0.2	4.1
Office and store equipment	154.1	−0.1	−0.2
Paperboard	285.4	2.3	14.1
Paper boxes and shipping containers	264.1	0.1	6.7
Paper office supplies	243.6	0.0	7.4
Paint	276.4	0.8	4.1
Plastic resins	309.4	−0.2	5.3
Precision measuring tools	253.3	0.0	3.1
Pumps and compressors	348.1	−0.5	0.7
Refractories	362.7	−0.1	6.9
Rubber belts and belting	348.9	−0.3	7.6
Scales and balances	232.3	0.5	1.6
Steel products	364.9	0.1	4.6
Switchgear	274.5	−0.2	0.3
Textiles, synthetic fibers	159.9	−0.1	1.5
Textiles, gray fabrics	154.4	0.2	5.2
Tires and tubes	244.1	0.0	0.5
Transformers and power regulators	228.0	0.0	2.0
Welding equipment	281.7	0.0	1.4
Wire and cable	202.0	0.4	−1.2

Industrial prices



Source: Bureau of Labor Statistics



remain weak with quotes off more than 2% over the past month, and 3% under year-earlier levels. The weakness has also spread to some plastic resins where declines in polyethylene and PVC also put this key material in the negative column.

Metals have not been buoyant either, with recent softness noted in aluminum, lead, zinc, and steel.

The only basic raw materials that showed some strength this month were building materials (overall advance of 0.2%) where cement, asphalt, lumber, paint, and environmental controls all rose, offsetting declines in flat glass, gypsum, and plastic construction materials.

Machinery was also moderate, despite rather sharp pickups in capital equipment buying. Machine tool and mining machinery edged higher, but these were offset by declines in heavy trucks, chemical and plastic industry machinery.

Other evidence of moderation is a Commerce Department report comparing demand gains in both dollars and physical volume which suggested only a 1% increase in 1984 price averages.

Perhaps the best indication of a continuing buyer's market is the pervasiveness of the current softness. A tally of 50 or so commodities monitored regularly by *PW* shows about 20 of them in the negative column in the past month, a performance not seen since the 1982 recession depths.

STEEL SCENE

Buyers not all that bullish

The fourth quarter is not shaping up well for the steel industry.

Buyers queried in the latest NAPM Steel Survey report reduced bullishness with their steel requirements. More contemplate tonnage declines (31%), than contemplate increases (22%).

Distributors responding to a new Steel Service Center Institute (SSCI) survey are only slightly more optimistic. More see an increase (29%) in their incoming orders than see decreases (21%), a gap of only 8 points compared to January, February, and March when the gaps were 80, 75, and 52 points, respectively.

Another indication of service centers' caution is that some 98% of members surveyed say they will maintain the same level of reduced inventories over the next three months, with 74% of these saying they plan reductions.

Inventory caution also appears on the steel buyers' front with 53% planning on reductions and none planning additions.

This could be just talk on the part of the buyers and service centers. Holdings in both instances are not that out of line with current usage patterns. Months' supply figures (see chart) are only slightly higher than they were in late 1983 and early 1984. There does not appear to

be any significant buildup.

Not everyone seems to be as concerned as the survey would indicate. SSCI president Andrew G. Sharkey remains cautiously optimistic. As he says, "while the decline in flat rolled steel products was slightly higher than anticipated, the recent hiatus was expected and should not be cause for concern. If you look at the year-to-date, we're still almost 30% ahead of a year ago."

He also points out that the appliance industry is in the midst of a record year and, if the market demand pattern continues, 1984 will surpass the previous best peak by 1.5 million units.

But much of the production will be coming from imports as the industry heads for a peak 22 million ton import year.

Prices remain the major impetus for this import surge. At latest report, some 92% of service center respondents said foreign carbon steel was moving below domestic rates, with 15% of them saying the break was over 10%.

In stainless the figures are equally impressive, with 81% noting foreign bargains and 25% of them putting the advantage over 10%.

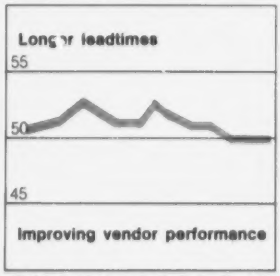
Buyers seem to be in the driver's seat with 79% noting bargains, 6% labeling them "substantial."

Availability is another factor. Only a few spotty problems were noted by steel users and most of these were centered on coated sheet. Fears of future shortages were running at half of what they were a few months ago.

Monthly procurement status report

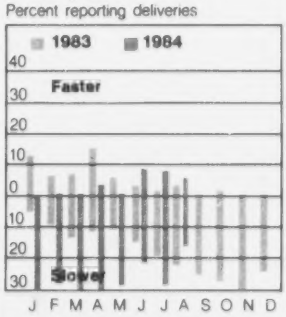
Leadtime index

A 'diffusion' index based on 158 key commodities. Above '50' indicates a tendency for leadtimes to stretch out. Below '50' suggests improving vendor performance.

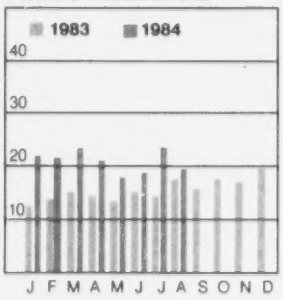


Delivery performance

Percent reporting deliveries

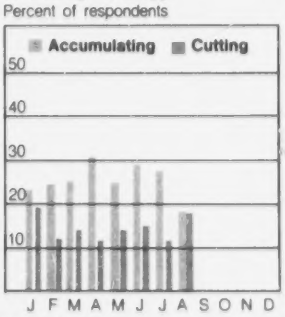


Forward commitments



Inventory strategy

Percent of respondents



Source: NAPM

Steel service centers are even more confident about supplies. Not one grade of steel is currently on the problem list—a sharp contrast to last June when some problems were noted in 9 of the 14 metal categories monitored by SSCI.

PROCUREMENT STATUS

PW index neutral for third month

Early fall doesn't seem to be bringing much of a change from summer vendor leadtime performance.

Thus *PW's* exclusive leadtime index remains squarely at the neutral "50" level for the third month in a row—a pretty good indication that any remaining stretchouts are being completely offset by shrinkages in other areas.

Even some of the earlier problem areas seem to be disappearing. Previous tightness in steel and aluminum is now only an unpleasant memory. While semiconductors remain tight, the situation is not nearly as critical as it was a few months ago.

Another indication of a somewhat easier situation is that only 15% of the buyers responding to the latest NAPM survey report slower deliveries—down from the 20% and higher figures for the last two months.

PMs are reflecting this improved procurement climate by slowing down on forward commitments. Last month only 20% committed 90 days or more in advance for production materials. And 15% said that they were buying hand-to-mouth, up from the 12-13% readings posted for the previous two months.

Inventory policies also reflect an improved situation. For the first time this year the same number of buyers were paring as were adding to stocks, suggesting that purchasing manager worries have subsided a bit.

This encouraging picture is also confirmed by factory operating rates which, despite all the recent demand gains, remain several points below the 85% level that traditionally separates a buyer's from a seller's market.

Leadtimes and availability

Chicago: Some stretchout in coated/galvanized steel (to 10 weeks) and structurals (to 3-6). In a bit are aluminized sheet (to 5), aluminum coil and sheet (to 10-12), chrome chemicals (to 1-2), and PVC resin (to 1). No change in copper products or electronic components.

Cleveland: Not all that much change here. Most alloying materials are available on demand. Also holding steady (in weeks) are glassine papers (4-5), lumber (3), skids (3), plastic packaging material (2-3), strapping (2-3), corrugated boxes (3), and aluminum (14).

Los Angeles: Semiconductors have come in considerably (to 12 weeks), as have passive components (to 18). No change in other electric parts or for galvanized steel (12-16), copper fittings (3-5), pumps (8-10), fasteners (6-8), and paint (3-5).

BUSINESS DATATRAK

Houston: Small but mixed changes here. Centrifugal pumps are in to 10-12 months. Stretching a bit are heat exchangers (to 6-14 months) and turbogenerators (to 6-15 months). All metals are generally available in 2 weeks or less, MRO items in 2-3 weeks, chemicals in 0-1 weeks.

Philadelphia: Modest stretchouts for titanium (to 14 weeks) and high temperature metal strip (to 10 weeks). Little change in other metals with these weekly waits: carbon sheet (1-2), carbon plate (3-4), structurals (2-6), copper and brass products (4-5), and stainless strip (6-8).

Pittsburgh: Manganese has come in to 4 weeks (from 8) as more material surfaces. Little change in other alloying materials with these weekly waits: lead (2), magnesium (4), nickel (2), silicon (4), and tin (4). Paint is available in 4-5 weeks, polyethylene in 5, and polyvinyl chloride in 6.

Leadtimes (in weeks)

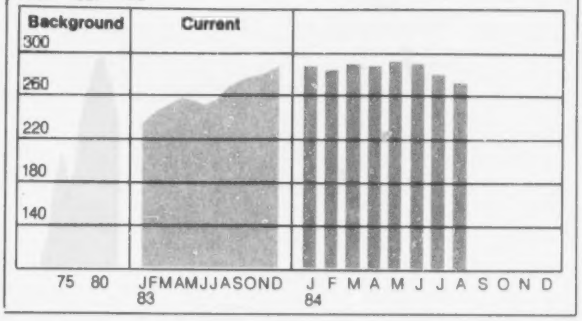
	Now	Month ago	Six months ago
STEEL			
Sheet (Phil)	9	9	9
C-R Sheet (Chgo)	5	5	8
Plate (Phil)	10	10	10
Plate (Chgo)	2½	2½	6
Reinforced (Hous)	6	6	6
H-R Bars (Phil)	7	7	7
H-R Bars (Chgo)	3	3	3
Cold-Drawn Bars (Phil)	7	7	4½
Galvanized (LA)	14	14	20
Galvanized (Chgo)	10	6	9
Structurals (Chgo)	4½	3½	2½
Structurals (Hous)	17	17	17
Tubing (Phil)	7	7	7
Grey Iron Castings (LA)	5	5	6
Steel Castings (Hous)	11½	11½	11½
Forgings (Hous)	6	6	5
Pipe, Carbon (Hous)	13	13	13
ELECTRIC & ELECTRONIC			
Cables (Chgo)	8½	8½	8½
Capacitors (Chgo)	17	17	16
Circuit Breakers (Chgo)	6	6	6
Electromech. Devices (LA)	7	7	9
ICs (Linear) (Phil)	20	20	20
Motors (Phil)	15	15	21
Motors, 1000 hp & Up (Hous)	39	39	39
Printed Circuit Boards (Chgo)	20	20	17
Relays (Chgo)	15	15	15
Resistors (Chgo)	14	14	10
Resistors, Wirebound (Phil)	10	10	10
Transformers (Chgo)	10	10	10
LUMBER			
Hardwood (Pgh)	3	3	3
Hardwood (Clev)	3½	3½	3½
Plywood (Chgo)	2	2	1½
Plywood (Phil)	1½	1½	1½
Softwood (Clev)	3	3	3
Softwood (Phil)	⅓	⅓	⅓
Softwood (Pgh)	3	3	3
Particleboard (Phil)	2½	2½	2½
CHEMICALS-PLASTICS			
Adhesives (LA)	½	½	½
Napthalene (Chgo)	2	2	2
Paint (LA)	5	5	4
Paint, Coil Coating (Pgh)	4	4	4
Paint, Maint. (Cleve)	3½	3½	3
Polyester Resin (LA)	2	2	2
Polyethylene Resin (Cleve)	3	3	3
Polyethylene Resin (Pgh)	4	4	4
PVC Resin (Chgo)	1	1	2
PVC Resin (Pgh)	6	6	4
Titanium Dioxide (LA)	1	1	1
PACKAGING			
Bags, Kraft (Pgh)	5	5	5
Bags, Multiwall (Clev)	9	9	9
Bags, Multiwall (Pgh)	6	6	6
Cartons, Corrugated (Cleve)	3	3	3
Cartons, Corrugated (Hous)	3	3	3
Cartons, Folding (Phil)	6½	6½	6½
Cartons, Folding (Pgh)	3½	3½	3½
Cellophane Wrap (Phil)	5	5	5
Plastic Bags (Pgh)	3½	3½	3½
Plastic Pkg. (Pgh)	3	3	3
Shrink Film (Chgo)	4	4	4
Shrink Film (Clev)	3	3	3
Drums, Fiber (Pgh)	1	1	1
Drums, Steel, Std. (Pgh)	1	1	1
Wood Pallets (Chgo)	2½	2½	2½
Wirebound Boxes (Pgh)	4½	4½	4½
Strapping (Clev)	2½	2½	2½
Strapping (Pgh)	3	3	3
PAPER			
Fiberboard (Clev)	3½	3½	3½
Glassine (Clev)	4½	4½	4½
Glassine (Pgh)	5½	5½	5½
Groundwood (Clev)	4½	4½	4½
Groundwood (Pgh)	7	7	7
Kraft (Clev)	1	1	1
Kraft, Bleached (Clev)	1	1	1
Kraft, Bleached (Pgh)	5	5	5
Kraft, Natural MFNS (Clev)	1	1	1
Laminated (Clev)	8	8	8
Tissue (Pgh)	5½	5½	5½
NON-FERROUS			
Aluminum Coil (Chgo)	11	13	15
Aluminum Plate (Chgo)	14	14	9
Aluminum Sheet (LA)	4½	4½	4½
Aluminum Sheet (Chgo)	11	13	15
Brass Castings (LA)	7	7	7
Brass Rods (Chgo)	6	6	3½
Brass Sheet (Chgo)	9	9	15
Brass Tube (Chgo)	5	5	9
Copper Fittings (LA)	3½	3½	3½
Copper Mill Prod. (Pgh)	6	6	6
Copper Tube (LA)	5½	5½	5½
Copper Tube (Phil)	6	6	6
Lead (Pgh)	2	2	2
Magnesium (Pgh)	4	4	6
Manganese (Clev)	1	1	1
Nickel (Clev)	1	1	1
Nickel (Pgh)	2	2	2
Silicon (Clev)	1	1	1
Tin (Pgh)	3	3	3
Wire, Specialty (LA)	5	5	6
Zinc (Pgh)	2	2	6
MISCELLANEOUS			
Bearings, Domestic (Phil)	22	22	12
Bearings, Foreign (Phil)	26	26	26
Boilers & Furnaces (Hous)	35	35	35
Compressors, Centrifugal (Hous)	50	48	52
Compressors, Reciproc. (Hous)	39	39	43
Fasteners (Chgo)	1½	1½	1½
Fasteners (LA)	7	7	6
Fasteners, Std. (Phil)	2½	2½	2
Heat Exchangers, Carbon-alloy Steel (Hous)	20	20	20
Heat Exchangers, Hi-pressure (Hous)	35	43	21
Insulation Mat'l. (LA)	7	7	7
Machined Parts (Hous)	9	9	9
Pipes & Valves (Chgo)	2	2	2
Pumps (Hous)	35	35	39
Pumps (LA)	9	9	9
Rubber, Synthetic (LA)	2	2	2
Rubber Hose (LA)	4	4	4
Tungsten Carbide Parts (Hous)	15	15	15
Valves, Cast Steel (Hous)	17	17	6½
Welding Supplies (Hous)	5	5	5

BUSINESS DATATRAK

Raw material price barometer

Latest month	274.6
Month before	280.1
Year ago	265.2

Index: 1967 = 100



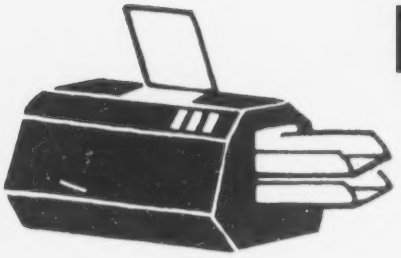
Latest spot market prices

	Latest price	Previous month	Year ago
FERROUS METALS			
Pig iron, basic, valley, gross ton	213.00	213.00	213.00
Pig iron, Bessemer, Pitts., gross ton	213.00	213.00	213.00
Steel, billets, Pitts., net ton	367.00	367.00	347.00
Steel, structural shapes, Pitts., cwt.	23.90	23.90	23.90
Steel, structural shapes, Chi., cwt.	23.90	23.90	23.90
Steel, structural shapes, Los Angeles, cwt.	24.40	24.40	24.40
Steel, bars, dlvd. Phila., cwt., merchant quality	23.95	23.95	17.50
Steel, bars, Pitts., cwt.	23.95	23.95	17.50
Steel, bars, C.R., Pitts., cwt.	29.25	29.25	26.00
Steel, plates, Pitts., cwt.	23.25	23.25	25.75
Steel, plates, H.R., Pitts., cwt.	23.25	23.25	25.75
Steel, sheets, C.R., Detroit, cwt.	27.10	27.10	26.15
Steel, strip, C.R., Chi., cwt.	35.30	35.30	29.05
Steel, basic wire, Pitts., cwt.	23.65	23.65	23.65
NONFERROUS METALS			
Aluminum, ingot, lb. (market place)	0.495	0.553	0.762
Antimony, in alloy, lb.	2.00	2.00	2.00
Beryllium-copper, cost ingot, lb.	5.20	5.20	4.95
Brass, red, 85%, [sheet], lb.	1.26	1.23	1.27
Brass, yellow, [sheet], lb.	1.21	1.18	1.21
Cadmium, ton lots, lb.	1.55	1.55	1.25
Copper, electrolytic, wire bars, refd., lb.	0.65	0.62	0.73
Copper sheet, over 24 in., lb.	1.35	1.32	1.36
Lead, common, N.Y., lb.	0.260	0.280	0.200
Magnesium, pig ingot, [99.8%], lb.	1.48	1.48	1.38
Mercury, 20 fl. lots, N.Y., fl.	308.00	295.00	288.00
Molybdenum Climax Oxide/bags, lb.	4.65	4.65	4.65
Nickel, electrolytic, producer, lb.	3.20	3.20	3.20
Platinum, producer, oz.	475.00	475.00	475.00
Silver, N.Y., oz.	7.20	7.67	12.20
Tin, Straights, N.Y., lb.	6.20	6.28	6.43
Zinc, Prime West, East St. Louis, lb.	0.48	0.48	0.46
Zinc, die casting alloy, No. 3, lb.	0.545	0.555	0.525
PAPER			
Uncoated book #3 offset, ton	850.00	850.00	680.00
Watermarked bond, ton	985.00	985.00	845.00
Gummed sealing tape, carton	15.65	16.02	15.44
Boxboard, mach. clay ctd. recycled sheets 80 bright, .016, ton	495.00	495.00	475.00
Wrapping paper, std. distributor cost, kraft, basis wt. 50 lb., roll	28.00	28.00	28.00
Kraft linerboard, 42 lb., unbleached, ton	350.00	350.00	290.00
TEXTILES			
Burlap, 10 oz., 40", N.Y., yd.	0.359	0.339	0.262
Cotton drill, 1.85, 59", 68x49, N.Y., yd.	1.04	1.04	1.00
Cotton middling, 1", N.Y., lb.	0.622	0.622	0.732
Printcloth, 48", 80x80, N.Y., spot, yd.	0.77	0.76	0.66
Army duck, 37", 13 oz., yd.	1.91	1.91	1.63
Blended printcloth, 64", 78x54, yd.	0.77	0.77	0.72
20s combed yarns	2.10	2.10	1.78
Wool tops, N.Y., lb.	3.60	3.60	3.60

	Latest price	Previous month	Year ago
CHEMICALS			
Acrylonitrile, tanks, lb.	0.455	0.455	0.430
Ammonia, anhydrous, fertilizer, wholesale, tanks, ton	210.00	210.00	150.00
Benzene, petroleum, tanks, Houston, gal.	1.28	1.28	1.50
Caustic soda, 76% solid, drums, carlots, cwt.	26.00	26.00	26.00
Cresylic acid [over 25%], tanks, lb.	0.58	0.58	0.58
Formaldehyde, USP, 37% [12% to 15% meth.], tanks, lb.	0.106	0.106	0.106
Glycerine, synthetic, tanks, lb.	0.81	0.81	0.73
Methanol, syn., tanks, 4,000 gals., f.o.b. Gulf Coast plants	0.54	0.54	0.48
Naphthalene, crude, tanks, lb.	0.22	0.22	0.22
Phthalic anhydride, tanks, lb.	0.305	0.305	0.305
Polyethylene resin, low density liner film grade (market price), lb.	0.410	0.410	0.380
Polypropylene, homopolymer grade (market price), lb.	0.400	0.400	0.360
Polystyrene, general purpose grade (market price) lb.	0.41	0.41	0.38
Shellac, bone dry, N.Y., lb.	1.65	1.65	1.65
Soda ash, 58%, light carlots, cwt.	6.15	6.15	6.15
Styrene monomer, 99.6%, tanks, lb.	0.35	0.35	0.34
Sulphur, crude, ex-terminal, Tampa, Fla., lt.	147.50	140.00	132.50
Sulphuric acid, 66%, commercial, tanks, ton	56.85	56.85	56.35
Titanium dioxide, anatase, reg., carlots lb.	0.69	0.69	0.69
Xylene tanks, gal.	1.33	1.33	1.33
BUILDING MATERIALS			
Lumber, 2x4 fir, mbf, cl	312.75	307.55	335.10
Lumber, 2x2, pine, mbf, cl	298.15	301.65	345.10
Plywood, plyform, ¾", msf, cl	576.80	567.70	561.40
Plywood, ⅜", msf, cl	373.05	364.05	363.25
Cement, bulk, ton, tl	63.75	63.75	61.80
Sand, ton, cl	6.07	6.07	5.95
Ready-mix concrete, 3,000 psi/cu.yd., 15 cu. yd.	46.87	46.73	45.73
Crushed stone, 1½", ton, cl	7.27	7.53	7.90
Concrete blocks, sand/gravel, 8"x8"x16", ea., tl	0.78	0.77	0.75
Gypsum sheathing, ½"x1"x8", msf, tl	205.57	204.57	163.90
Brick, common, per thousand, tl	173.08	173.08	171.95
Asphalt paving, AC-20	169.53	168.86	158.58
Concrete sewer pipe, 12", prem. joint, per foot, cl	7.04	7.04	6.69
FUELS			
Fuel oil, No. 6 or Bunker C, Gulf., bbl.	26.25	26.00	26.00
Fuel oil, No. 6 or Bunker C, N.Y., barge, bbl., reseller	30.50	30.50	31.75
Gasoline, 91 oct., reg., Los Angeles, rack, gal.	0.740	0.730	0.790
Gasoline, 94 oct., reg., Chi., tank car, gal.	0.796	0.771	0.870
Heating oil, No. 2, Chi., bulk, gal.	0.795	0.785	0.848
Heating oil, No. 2, N.Y., bulk, gal.	0.808	0.773	0.868
Heavy fuel, PS 400, Los Angeles, rack, bbl.	26.50	26.50	26.25
Jet kerosene, gal.	0.780	0.760	0.830
LP-Gas, propane, Okla., tank cars, gal. [incl. discount]	0.411	0.405	0.490
SCRAP MATERIALS			
Steel, No. 1, hvy., dlvd., Pitts., ton	87.00	82.00	83.00
Steel, No. 1, hvy., dlvd., Chi., ton	80.00	77.00	77.00
Copper, No. 1, East, wholesale buy, dlvd., lb.	0.550	0.550	0.685
Copper, No. 2, East, wholesale buy,	0.470	0.465	0.598
Brass, red, East, wholesale buy, dlvd., lb.	0.515	0.510	0.645
Brass, yellow, East, wholesale buy, dlvd., lb.	0.360	0.350	0.360
Alum., old sheet/cast, E., wholesale buy, dlvd., lb.	0.340	0.345	0.490
Alum., mixed clip., E., wholesale buy, dlvd., lb.	0.360	0.370	0.510
Zinc, old, East, wholesale buy, dlvd., lb.	0.200	0.200	0.145
Lead, clean solids, East, wholesale buy, dlvd., lb.	0.165	0.165	0.115
Paper, No. 1 mixed, dlr., N.Y., ton	Nom.	Nom.	Nom.
Paper, old corrug. box, dlr., Chi., ton	30.00	30.00	25.00
Paper, old corrug. box, dlr., N.Y., ton	25.00	25.00	20.00
Osnaburg cuttings, dlr., f.o.b. N.Y., lb.	0.12	0.12	0.100
White wipers, No. 1, dlr. buy, f.o.b. N.Y., lb.	0.34	0.37	0.34

[Sources: Metals Week, Engineering News-Record (20-city averages), Platt's Oilgram Price Service.]

PW's Business Data File



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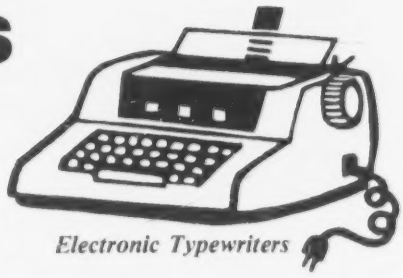
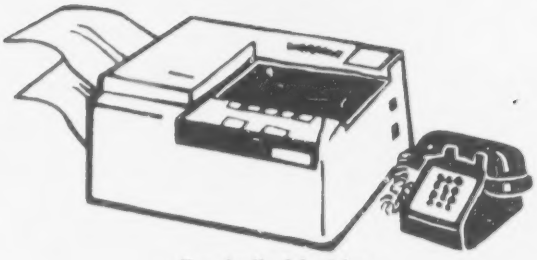


Electronic Typewriters



Facsimile Machines

Drop this into your electronic mail box: the automated office a.k.a. the office of the future is here today. Maybe not to the extent that pundits of the office pool have been predicting for some time, but nonetheless in a variety of forms, any and all of which can make the purchasing manager's job that much more complex.

That's why we feel this year's edition of ***PW Business Data File*** is even more valuable than ever before. Covering the three product areas of copiers, facsimile machines, and electronic typewriters, it is arranged in a format which we feel gives you, the reader and user, the maximum amount of useful information. Included are product specifications as well as important pricing information.

Our information is only as good as that provided to us by suppliers and should be regarded in that way. If you wish further information about the products of a particular company, you may want to use our convenient reader inquiry service. A reader service number is included with every company entry. If you want a complete list of companies in any category, simply write to us and we'll send you our working list complete with addresses and telephone numbers.

Earlier this year when *Management Technology* magazine conducted a survey of its readership, it came to the conclusion that end users (33% from senior management and 50% from middle management) were no longer interested in buying technology for its own sake. In the study done for *MT* by International Data Corp., more than half of the respondents were found to feel that such technologies were "strategically critical" to improved decision making.

Clearly the impact of office automation has moved into the realm of middle, and often, senior management. A recent study by Frost & Sullivan, for example, estimates that by 1988 there will be 4.8 million professional/executive workstations compared with little over a million in 1983.

The overall approach that is emerging in the effort to automate the office is building a local area network (LAN) so that many different kinds of compatible equipment can be integrated into the communications network.

Technologies that would function in such a network include laser printing for high volume reproduction, electronic file storage that can be shared between many workstations, electronic mail, intelligent copiers with communications, telecopier (fax) transmission of hard copies, and even communication of micrographics through the computer.

Here are some trends in both pricing and usage that ***PW's*** research discovered:

- The cost of word processing is coming down.
- Electronic typewriters with enhanced memories are approaching word processors in sophistication.
- Companies are coming into the personal computer market as fast as others are leaving it.

The risks for purchasing are fairly obvious: They include everything from the problem of buying equipment from suppliers with staying power and with proper service capability to making sure that equipment is indeed compatible within the network

The importance of this final point is just now becoming apparent. It is to avoid what some are calling the possibility of data fragmentation through the creation of separate, unconnected databases throughout the corporation. If ever the climate would be right for making decisions based on faulty information, that's the condition that could promote it.

PurchasingWorld is providing this listing to help you make decisions that will build that integrated and compatible automated future for your office within your company's framework and needs. ***PW***

Typewriters

Product profile: Manufacturer & model	Mfr's suggested price ($)	10-pitch spacing	12-pitch spacing	Proportional spacing	Other spacing	Max paper width (in.)	Display (characters)	Correction memory (characters)	Internal memory (characters)	External memory	Year introduced	Company profile: Annual sales (mil $)	Year founded	Primary business	Sales profile: Mfr-direct sales	Mfr-owned outlets	Distributors	Dealers	No. sales locations	Service profile: Warranty period (mos.)	Mfr service contracts	Mfr-direct service	Mfr-authorized service	Other service	No. service locations
Adler, Div. of A.R.B.M (circle 336 on card)																									
Adler Satellite III	475	•	•		15	13.5		300			'84		1898	Electronic typewriters, copiers, other office machines				•	2,000	3	yes		•		2,000
Adler 310	695	•	•		15	14.2	40	500	2.5K	opt	'84														
Adler 1005/1005XL	895+	•	•			16.5		132		opt	'82/83														
Adler 1020	1,050	•	•	•	15	16.5	40	500	2.5K	opt	'84														
Adler 1040/1035	1,595+	•	•	•	15	16.5	40	4,000	16K	opt	'82/84														
Textriter Models 1/2	1,995+	•	•		15	16.5	1920	30,000	64K	std	'82														
Brother International Corp. (circle 337 on card)																									
Compactronic 60	449	•	•		15	13.5		1 line			'83		1953	Typewriters and office equipment		•	•		V		•	•		
Executron 65/68	530+	•	•	•	15	13.5	15	1 line	-/5K		'83/84														
EM series	800+	•	•	•	15	16.5	15/16	2 lines		opt	'83														
EP series	350+	•				8.75	15		-/4K	na	'84														
Canon U.S.A. (circle 338 on card)																									
AP 200/200X	645+	•	•		15	16.5	15	350			'83/84														
AP 300/300X	795+	•	•		15	16.5	15	350			'83/84														
AP 350/350X	945+	•	•		15	16.5	15	350	2-16K	opt	'84														
AP 550	1,995	•	•	•	15	16.5	20	500	16-64K	opt	'81														
Conitronix Inc. (circle 339 on card)																									
CI Concorde 1200/1220		•	•	•	6, 15	17	20	500	-/4K		'84	2	1976	Electronic type-writers and printers		•			3	no		•		
CI Concorde 1900/2000		•	•	•	6, 15	17	20	500	8K/16K		'84														
Docutel/Olivetti Corp. (circle 340 on card)																									
ET 111	895	•	•	•	15	17	16	500		opt	'83		1908	Office automation											
ET 115	1,075	•	•	•	15	17	24	500	1835	opt	'83														
ET 225/5K	1,695	•	•	•	15	17	26	500	5K	opt	'82														
ET 225/64K	2,975	•	•	•	15	17	26	500	64K	opt	'83														
ETV 300/16K	1,695	•	•	•	15		1920		16K	opt	'83														
Exxon Office Systems (circle 341 on card)																									
210 Intelligent	950	•	•	•	15	17		500			'83		1981	Office automation equipment	•		•		140	3	yes	•	•	•	
215 Intelligent		•	•	•	15	17	20	650	9K		'84														
220 Intelligent		•	•	•	15	17	32	650	12-36K		'84														
Facit Inc. (circle 342 on card)																									
8121	2,499	•	•	•	15	19.25	40	500	40K	opt	'83		1938	Office systems			•		860			•		6	
8105 KSR	1,599	•	•	•	15	19.25		1,000	2K		'82														
8001	1,099	•	•	•	15	19.25		330			'83														
7800	449	•	•			13		10			'83														

Hermes Products, Inc. (circle 343 on card)																							
16/19	425+	•	•		15	13	0/40				'83/84	160	1921	Calculators and electric typewriters			•	400	12	no		•	
30	895	•	•		15	13		500			'84												
34	1,075	•	•	•	15	17	20	1,835			'84												
40/51 series	1,495+	•	•	•	6, 15	17	20				'84												
Juki Office Machine Corp. (circle 344 on card)																							
3100/3200	349+	•	•		15	13		20		opt	'84		1981	Typewriters	•		•	•	2,500	3		•	•	800
Olympia U.S.A. Inc. (circle 345 on card)																							
Mastertype	699	•	•		[1]	14.8		213		opt	'84		1906	Office equipment	•		•	•	1,200	3			•	1,200
ES 100 SC	799	•	•			13.2		8		opt	'83												
Startype	899	•	•	•	[1]	14.8	40	500	4K	opt	'84												
Professional	1,249	•	•	•	[1]	17.2		500	4K	opt	'83												
Supertype 2/Disk	1,499+	•	•	•	[1]	17.2	20	500	16K	op/st	'83												
Panasonic Industrial (circle 346 on card)																							
KX-E601/E603	695+	•	•		15	15.5	16/20	1 line	1K/3K	na	'84		1964	Office systems			•		325	6	yes		•	325
KX-E701/E708	895+	•	•	•	15	15.5	-/40	500	1K/8K	opt	'83												
Royal, Div. of A.R.B.M. (circle 347 on card)																							
Royal Satellite III	475	•	•		15	13.5		300			'84		1898	Office machines			•	2,000	3	yes		•	2,000
Royal 410	695	•	•		15	14.2	40	500	2.5K	opt	'84												
Royal 5005/5005XL	895+	•	•			16.5		132		opt	'82/83												
Royal 5020	1,050	•	•	•	15	16.5	40	500	2.5K	opt	'84												
Royal 5035	1,595	•	•	•	15	16.5	40	4,000	16K	opt	'84												
Royal 5040/5041	1,995+	•	•	•	15	16.5	40	4,000	16K	op/st	'82												
Sharp Electronics (circle 348 on card)																							
ZX-330	595	•	•		15	13.5	15			na	'84	3,000		Office equipment and electronics			•	350	3			•	
ZX-415	895	•	•	•	15	17		450		na	'84												
ZX-505	1,295	•	•	•	15	17	32	400	16K	na	'82												
Swintec Corp. (circle 349 on card)																							
Collegiate	449	•	•		15	14.4		46			'84		1978	Electric typewriters			•	8				•	
1146CM/1186CM	549+	•	•		15	14.4		46/full			'82/83												
8000	799	•	•	•	15	14.4		1 line	8K		'84												
Syntrex Inc. (circle 350 on card)																							
ET400	1,390	•	•	•	15	13.2		500			'84	41	1979	Office automation, word processing	•			•	100	3	yes	•	•	100
Libra	2,595	•	•	•	15	17		4K	40K	opt	'82												
Xerox (circle 351 on card)																							
610 Memory Writer	1,195	•	•	•	[1]	15		180	1,150		'81	8,800	1906	Office products and systems	•		•	•	300		yes	•	•	200
615 Memory Writer	1,395	•	•	•	[1]	15		180	5,450		'81												
620 Memory Writer	1,995	•	•	•	[1]	15	20	180	9,260		'81												
625/627	2,370+	•	•	•	[1]	15	20	180	19K/31K		'81/82												
630/640	4,200+	•	•	•	[1]	15	20/	180	[2]		'83/84												

V—Warranty period varies

[1] *Other spacing available*

[2] *Limitless on 158,000 character diskettes*

[3] *Franchised dealers*

[4] *Dealers only*

Copiers

Product profile: Manufacturer & model	Mfr's suggested price ($)	Recommended monthly volume	Copies per minute	Sheet (S) or roll (R) fed	Plain (P) or coated (C) paper	Reduction capability	Rent or lease plan	Year introduced	Company profile: Annual sales (mil $)	Year founded	Primary business	Sales profile: Mfr-direct sales	Mfr-owned outlets	Distributors	Dealers	Number of sales locations	Warranty period (months)	Service profile: Mfr service contracts	Mfr-direct service	Mfr-authorized service	Other service	Number of service locations
A.B. Dick Co. (circle 353 on card)																						
955	1,995	5K	11	S	P	no	yes	'82	400	1884	Copy/duplicating	•	•	•	•	365	3	yes	•	•	•	365
965R	2,495	8K	13	S	P	yes	yes	'84														
985	2,595	15K	18	S	P	yes	yes	'83														
995R	3,695 +	40K	30	S	P	n/y	yes	'82/83														
Adler Royal Business Machines (circle 354 on card)																						
TA 210	1,695	3K	11	S	P	no	no	'84		1963	Typewriters, calculators, copiers				•	2,000	3	no		•		500
TA 211	1,995	6K	12	S	P	no	no	'83														
TA 218R	3,295	10K	12	S	P	yes	no	'83														
TA 230RE	4,995	30K	30	S	P	yes	no	'83														
Canon U.S.A. (circle 355 on card)																						
PC 10	795	500K		S	P	r o	yes	'82	945	1955	Business office and photo equip				•	600	3	no				1,000
PC 20/PC 25	1,095 +	500K	8	S	P	n/y	yes	'82														
NP 150/NP 155	1,895 +	7.5K	15	S	P	n/y	yes	'84														
NP 270/270F	3,995 +	5K-30K	27	S	P	yes	yes	'83														
NP 400/400AF	5,995 +	8K-40K	40	S	P	yes	yes	'83														
NP 500AF	8,195	10K-50K	50	S	P	yes	yes	'83														
Eastman Kodak Co. (circle 356 on card)																						
Ekta-print 100	38,590	15K-250K	70	S	P	no	yes	'75	10,000	1880	Photographic sales	•				60	3	yes	•			60
Ekta-print 100P/100PS	43,560 +	15K-250K	70	S	P	no	yes	'79														
Ekta-print 250F/250AF	110,000 +	50K-500K	92	S	P	yes	yes	'82														
Gestetner (circle 357 on card)																						
2110	1,695	15K-30K	11	S	P	no	no	'84			Office equip & computer supplies	•			•	355		yes	•			
2000S/2002R/2112RE	2,695 +	10K	12	S	P	n/y/y	no	'83/84														
2007RE	4,495	20K	20	S	P	yes	no	'84														
2140RE	5,295	40K	40	S	P	yes	no	'84														
2045-R (Full System)	14,995	60K	45	S	P	yes	no	'83														
IBM (circle 358 on card)																						
Model 10/20	8,200 +	5K-20K	75	S	P	n/y	yes	'76	40,180	1914	Business equip	•					3	yes	•			147
Model 30/40/60	12,400 +	25K-100K	70	S	P	n/y/y	yes	'80/82														
Mita Copystar America (circle 359 on card)																						
DC-122		10K	12	S	P	no	yes	'83	116	1973	Copiers and supplies				•		3	yes		•		
DC-111		3K	11	S	P	no	yes	'84														
DC-211		15K	20	S	P	no	yes	'83														
Minolta (circle 360 on card)																						
EP 300/RE	1,895 +	2.5K/5K	12	S	P	n/y																
EP 450/450Z	3,495 +	20K	25	S	P	n/y																

Product profile									Company profile			Sales profile					Service profile					
Manufacturer & model	Mfr's suggested price ($)	Recommended monthly volume	Copies per minute	Sheet (S) or roll (R) fed	Plain (P) or coated (C) paper	Reduction capability	Rent or lease plan	Year introduced	Annual sales (mil $)	Year founded	Primary business	Mfr direct sales	Mfr-owned outlets	Distributors	Dealers	Number of sales locations	Warranty period (months)	Mfr service contracts	Mfr direct service	Mfr authorized service	Other service	Number of service locations
Monroe Systems for Business (circle 361 on card)																						
RL-710	1,695	3K	11	S	P	no	yes	'84		1912	Office equipment	•				250	3	yes	•			250
RL-614	2,095	7K	12	S	P	no	yes	'83														
RL-620R	2,895	10K	18	S	P	yes	yes	'83														
RL-725RE	4,295	25K	21	S	P	yes	yes	'84														
RL-630RE	4,995	40K	30	S	P	yes	yes	'84														
RL-640RE		50K	40	S	P	yes	yes	'84														
Panasonic (circle 362 on card)																						
FP-1300/1310R	1,895+	8K	13	S	P	n/y	y/n	'82/83		1960	Electronics				•	500				•		500
FP-1802	2,995	15K	18	S	P	no		'83														
FP-1000		2K	10	S	P	no		'84														
FP-1520		10K	15	S	P	yes		'84														
Pitney Bowes (circle 363 on card)																						
2000/2800	3,695	7K/10K	15	S	P	n/y	yes	'84	1,606	1920	Office equipment	•				131	3	yes	•			600
3800	4,695	10K	20	S	P	yes	yes	'83														
M350/D350	6,295+	35K	35	S	P	yes	yes	'84														
D460	9,995	50K	46	S	P	yes	yes	'84														
Ricoh Corp. (circle 364 on card)																						
FT6080	9,995	55K	46	S	P	yes	y/n	'84	300	[2]	Cameras, office equipment			•		394		yes		•		294
FT5050/5070	5,495+	40K	35	S	P	yes	y/n	'84														
FT4085	4,195	25K	25	S	P	yes	y/n	'84														
FT4060	3,595	20K	20	S	P	yes	y/n	'84														
FT3020/3050	2,195+	10K	15	S	P	n/y	y/n	'84														
M10	1,330	3.5K	20	S	P	no	y/n	'84														
Royal Business Machines, Inc. (circle 365 on card)																						
Royal 1200MC	1,595	3K	12	S	P	no	yes	'84		1904	Office equipment	•				330		yes		•		
Royal 1602MR	4,495	20K	16	S	P	yes	yes	'83														
Royal 2502MR	4,795	25K	25	S	P	yes	yes	'84														
Sanyo Business Systems (circle 366 on card)																						
SFT 802/852	1,795+	5K	13	S	P	no	no	'84	6,000	1950	Electronics			•		200	6			•		200
SFT 1100/115OZ	2,995+	10K	15	S	P	yes	no	'83														
SFT 1200/1250Z	3,995+	20K	30	S	P	yes	no	'84														
Savin (circle 367 on card)																						
5015/5015RE	2,495+	15K	15	S	P	n/y	yes	'83	360	1959	Office copiers	•	•	•		600	3	yes	•	•		600
5020	3,995	20K	18	S	P	yes	yes	'83														
5030	5,495	50K	30	S	P	yes	yes	'83														
7035	6,895	30K	35	S	P	yes	yes	'84														
7045	10,495	75K	46	S	P	yes	yes	'84														

Product profile									Company profile			Sales profile					Service profile				
Manufacturer & model	Mfr's suggested price ($)	Recommended monthly volume	Copies per minute	Sheet (S) or roll (R) fed	Plain (P) or coated (C) paper	Reduction capability	Rent or lease plan	Year introduced	Annual sales (mil $)	Year founded	Primary business	Mfr-direct sales	Mfr-owned outlets	Distributors	Dealers	Number of sales locations	Warranty period (months)	Mfr service contracts	Mfr-direct service	Mfr-authorized service	Other service	Number of service locations
Sharp Electronics (circle 368 on card)																						
Z-60	1,150	1K	6	S	P	no		'84	4,000	1912	Electronic equipment			•	•		V		•			
SF 756	1,595	3K	10	S	P	no		'84														
SF 760	2,495	5K	12	S	P	yes		'84														
SF 816/825/826	4,195 +	25K	25	S	P	n/y/y		'84/82														
SF 900/901	5,995 +	40K	40	S	P	yes		'83/84														
3M Company (circle 369 on card)																						
566	3,595	10K	15	S	P	yes	yes	'83	7,039	1902	Consumer and business products	•	•	•	•		3	yes	•	•		
570	4,395	25K	21	S	P	yes	yes	'84														
583	5,895	40K	30	S	P	yes	yes	'84														
586	7,995	50K	40	S	P	yes	yes	'84														
Toshiba America Inc. (circle 370 on card)																						
BD-3301	1,795	5K	12	S	P	no	[1]	'84	28	1965	Office equipment			•		250	3	yes		•		250
BD-5511	3,995	20K	22	S	P	yes	[1]	'84														
BD-7815/7816	5,395 +	30K	30	S	P	yes	[1]	'84														
BD-8812	7,795	40K	40	S	P	yes	[1]	'84														
Van Dyk Research Corp. (circle 371 on card)																						
6000	27,900	60K	100	R	P	no	yes	'84	5	1964	Copiers, duplicators			•			12	yes	•	•		25 +
5000F	24,300	60K	67	R	P	no	yes	'84														
4000/4100	17,000 +	40K	67	R	P	no	yes	'71/82														
Xerox Corp. (circle 372 on card)																						
1020	1,795	1K-4K	11	S	P	no	yes	'83	8,802	1906	Office products and systems	•		•	•	300		yes	•	•		200
1035	4,195	3K-20K	20	S	P	yes	yes	'83														
1045/1048	6,495 +	4K-25K	40	S	P	yes	yes	'83/84														
1055	14,500	15K-50K	50	S	P	yes	yes	'84														
1075	48,375	24K +	70	S	P	yes	yes	'82														
2350	2,295	5K	10	S	P	yes	yes	'81														
2830	3,195	1K-15K	20	S	P	no	yes	'82														
3300	4,995	1.5K-8K	23	S	P	no	yes	'79														
3450	6,495	8K-25K	30	S	P	yes	yes	'79														
5400	8,200	10K-50K	45	S	P	no	yes	'77														
5600	11,800	15K-50K	45	S	P	no	yes	'79														
8200	40,000	25K-125K	70	S	P	yes	yes	'79														
9210 I	70,000	50K +	120	S	P	yes	yes	'82														
9500/9900	116,000 +	100K +	120	S	P	y/n	yes	'79/84														
Yorktown Industries Inc. (circle 373 on card)																						
Genie 700 HR	895	2.5K	8	S	P	no		'83		1950	Photocopiers and supplies	•		•		1,000		yes	•			
Model J Copier	1,695	10K	12	S	P	no		'84														

V—Warranty period varies [1] *Dealer option* [2] *1936—merged 1964*

Facsimile equipment

Product profile													Company profile			Sales profile				Service profile						
Manufacturer & model	Mfr's suggested price ($)	Transmitter	Receiver	Transceiver	Analog signal	Digital signal	Tabletop (T) or console (C)	Max paper size (in.)	Automatic document feed	Transmission speed for 8½ x 11 page	Compatibility group (1,2,3)	Year introduced	Annual sales (mil. $)	Year founded	Primary business	Mfr-direct sales	Mfr-owned outlets	Distributors	Dealers	Number of sales locations	Warranty period (months)	Mfr service contracts	Mfr-direct service	Mfr-authorized service	Other service	Number of service locations
Alden Electronics, Inc. (circle 376 on card)																										
Alden model 340 III	3,400			•			T	8.5 x 11	std	1m	3	'84	14	1946	Facsimile equip	•				3	yes	•	•		
Canon U.S.A., Inc. (circle 377 on card)																										
Canon Fax 320e	5,995			•		•	T	11 x any	std	20s	all	'83			Optics and imaging technology	•	•	•			3	yes	•	•		1,500
Canon Fax 330	4,995			•		•	T	8.5 x any	std	22s	all	'83														
Canon Fax S10	3,495			•		•	T	11 x any	std	17s	all	'84														
Exxon Office Systems (circle 386 on card)																										
Exxon Qwip™ 2310	5,845			•		•	T	8.5 x 39.37	std	40s	2, 3	'82		1981	Office automation equipment	•		•		140	3	yes	•	•	•	525
Exxon Qwip™ 2210	2,995			•		•	T	8.5 x 132	na	40s	2, 3	'83														
NEC America, Inc. (circle 378 on card)																										
BIT I/BIT II	4,500 +			•	•	•	T	8.5 x any	std	12s	all	'84	2.2	1899		•				20		yes	•	•		
System II D	3,500			•	•		T	8.5 x any	std	1m	1, 2	'82														
System IIIS/T	4,400			•	•	•	T	8.5 x any	std	40s	all	'83														
Panafax Corp. (circle 379 on card)																										
Panafax PX-100/200	3,995 +			•		•	T	8.5 x any	std	20s	all	'83/84	70	1976	Facsimile equip	•				30	3	yes	•			50
Panafax MV-3000	4,495			•		•	T	11 x any	std	20s	all	'81														
Panafax MV-1200	1,975			•	•			8.5 x 25	opt	2-3m	1, 2	'78														
Ricoh Corp. (circle 380 on card)																										
Rapicom 1000/1500	1,000 +			•		•	C	14/47.5	std	45s	1,3/2	'80	70	1971	Facsimile equip	•			•	41	3	yes	•			34
Rapicom 3300	5,000			•		•	T	21.7	std	30s	all	'82														
Rapicom 6300	8,840			•		•	C	59	std	15s	2, 3	'81														
Sanyo Business Systems (circle 381 on card)																										
SF 615	3,795			•		•	T	8.5 x any	std	30s	2, 3	'84	4,000	1950	Electronic business equip	•		•		500 +	3	yes	•	•		500 +
SF 935	4,700			•		•	T	11.7 x any	std	20s	2, 3	'83														
Sharp Electronics Corp. (circle 382 on card)																										
FO-2530/2531	3,495 +	•	•			•	T	11.7 x 39.4	std	40s	2, 3	'84	900	1962	Industrial equip, consumer elect				•		3	no		•		
FO-2515/2516	4,395 +	•	•			•	T	11.7 x 39.4	std	20s	2, 3	'84														
Telautograph Corp. (circle 383 on card)																										
Omnifax G96/G99	4,000 +			•		•	c/t	11.75 x any	std	15s	all	'82/83	35	1888	Facsimile, communications equipment	•				50	12	yes	•	•		240
Omnifax G35	2,895			•		•	T	8.5 x 59	std		all	'84														
Omnifax SF3	9,000			•		•	T	11.7 x any	std		2, 3	'84														
3M Company (circle 384 on card)																										
EMT 9145	2,985	•	•	•	•	•	T	8.5 x 14	opt	40s	all	'84				•	•	•			3	yes	•			
EMT 9165	6,500	•	•	•	•	•	T	11 x 17	std	20s	all	'83														
EMT 2700	3,995			•	•	•	T	10.5 x any	std	20s	2, 3	'82														
Xerox Corp. (circle 385 on card)																										
Telecopier 295	4,600			•	•	•	T	9 x any	std	25s	all	'83	8,400	1961	Information products/systems	•				125	3	yes	•			125
Telecopier 495-1	4,600			•	•	•	C	10.2 x any	std	25s	all	'82														